

means for classifying content objects;

means for classifying rights management information;

a user classifier, including

means for using audit trails in assigning users to classes;

means for using profiles in assigning users to classes; and

a matching engine which receives classification information from the object classifier and the user classifier and matches classified information.

- 137. A matching and classification utility as in Claim 136 further including a rights operating system.
- A matching and classification utility as in Claim\136 further including a 138. memory storing rights management information.
- A matching and classification utility as in Claim 136 in which the matching engine further includes control means which use rights management information to at least in part control the operations of the matching engine.

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- 140. A matching and classification utility as in Claim 136 in which the object classifier includes means for classifying metadata information.
- 141. A method, including the steps of:

providing rights management information, content objects and metadata to an object classifier;

controlling the operation of the object classifier using a rule;

based on the provided information and the rule, the object classifier assigning information to categories and generating matching information;

storing the matching information in a secure container, the secure container having associated a rule at least in part governing use of the secure container contents; and

providing the secure container to a third party.

142. A method as in Claim 140, in which the step of the object classifier assigning information to categories includes assigning information to a class within a class hierarchy.

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- 143. A method as in Claim 140, further including creating an audit record indicating the results of the assignment of information to categories.
- 144. A method as in Claim 140 in which the matching information matches a user to a content object.
- 145. A method as in Claim 140, in which the matching information matches a rule to a content object.
- 146. A method including the steps of:

at a node associated wild a user, collecting usage information, the collection governed at least in part by a rule provided by a value chain participant;

sending the collected information to a usage clearinghouse;

the usage clearinghouse analyzing the usage information and providing analysis information to a matching and classification utility;

the matching and classification utility using information provided from the usage clearinghouse to assign the user to a class;

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the matching and classification utility selecting a content object for communication to the user, the content object selected at least in part based on the class assignment;

the matching and classification utility packaging the content object in a secure container, the secure container having associated a rule set at least in part gaverning use of at least a portion of the secure container contents;

the matching and classification utility providing the secure container to the user.

147. A method as in Claim 146, further including:

before the matching and classification utility provides the secure container to the user, the matching and classification utility receiving the content object and assigning the content object to a class.

the selection of the content object based at least in part on the class to which the content object was assigned.

148. A method as in Claim 146, in which the rule set in cludes a rule provided by a content provider or publisher and a rule provided by the matching and classification utility.

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149. A method as in Claim 146, further including:

before the matching and classification utility provides the secure container to the user, the matching and classification utility communicating with a content provider, the communication including information about the user class, the content provider providing the content object to the matching and classification utility at least in part in response to the communication.

150. A method as in Claim 149, further including:

before the content provider provides the content object to the matching and classification utility, the content provider packaging the content object in a secure container.

151 A method including the following steps:

creating a secure container;

associating a first rule with the secure container, the rule at least in part governing use of at least some of the secure container contents, the first rule at least in part specifying potential users or recipients of the secure container contents, the specification being based at least in part on a class to which the potential users or recipients have been assigned;

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sending the secure container to a first remote party;

the first remote party embedding a content object in the secure container;

sending the secure container, including the embedded content object, to a second remote party the second remote party consisting of a potential user;

evaluating a digital certificate associated with the potential user;

determining, based at least in part on the digital certificate, that the potential user has been assigned to a class; and

based on the determination, and at least in part under control of the first rule, making at least some of the secure container contents available to the potential user.

152. A method as in Claim 151, further including:

the first remote party associating a second rule with the secure container, the second rule at least in part governing use of at least a portion of the secure container contents; and



the step of making at least some of the secure container contents available to the potential user occurring at least in part under control of the second rule.

153. A method as in Claim 151, further including:

> assigning the potential user to the class, the assignment being based at least in part on the potential user's use of content.

- 154. A method as in Claim 153 in which the assignment of the potential user to the class is based at least in part on demographic information.
- 155. A method as in Claim 154, further including:

following the potential user's access to the secure container contents, generating an audit trail describing an aspect of the access and providing the audit trail to a remote site.

A method including the steps of:

receiving a content object at a matching and classification utility;

assigning the content object to a class, the classification based at least in part by one or more topics to which the content object relates;

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at a user site, generating user demographic information, including information entered by the user;

transmitting the demographic information to the matching and classification utility;

at a user site, generating usage information relating to usage of content by the user;

transmitting the usage information to the matching and classification utility;

at the matching and classification unity, using the demographic information and the usage information to assign the user to a class;

at the matching and classification utility, matching the content object to the user based at least in part on the content object class and the user class;

based at least in part on the match, transmitting the content object to the user in a first secure container having associated a first rule at least in part governing use of at least a portion of the secure container contents.

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## A method as in Claim 156, further including:

before the transmission of the usage information to the matching and classification utility, transmitting the usage information to a usage clearinghouse, the usage clearinghouse analyzing the usage information and transmitting the usage information to the matching and classification utility.

158. A method as in Claim 156, in which:

> the matching and classification utility receives the content object from a first remote site, the content object being received in the first secure container; and

the content object is transmitted to the user in a secure container having associated the first rule and having associated a second rule, the first and second rules at least in part governing use of at least a portion of the secure container contents, the second\rule being associated with the secure container by the matching and classification utility.

A method as in Claim 156, in which the usage information includes information relating to a payment method used by the user.

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the matching and classification utility receiving rating information from a remote source, the rating information rating an aspect of the content object; and

the matching and classification utility using the rating information in assigning the content object to a class.

161. A digital commerce system including:

a first matching and classification utility including:

an object classifier;

a user classifier including means for analyzing usage data and using the usage data to assign users to classes;

a matching engine;

a communications port connected to an external network;

a protected processing environment; and

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usage data received from a usage clearinghouse; and

a digital certificate;

the digital commerce system further including a usage clearinghouse including:

a communications port for receiving audit trail information from users and for communicating usage data to the first matching and classification utility;

a memory storing audit trail information received from users; and

a processor for analyzing audit trail information and creating usage data.

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162. A digital commerce system as in Claim 161, further including:

acertifying authority including:

means for issuing digital certificates;

a communications port connected to an external network; and

the first matching and classification utility further including means for associating digital certificates with classes.

163. A digital commerce system as in Claim 161, further including:

a secure directory services vode, including:

a communications port connected to an external network;

means for receiving requests for information about class memberships,

and a memory storing a database of information, including information correlating individuals with class memberships.

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A digital commerce system as in Claim 161, in which:

the first matching and classification utility is associated with a first  $oldsymbol{\lambda}$ rganization and the digital commerce system further including:

a second matching and classification utility associated with a second organization, the second matching and classification utility including:

an object classifier;

a user classitier, including means for analyzing usage data and using the usagà data to assign users to classes;

a matching engine;

a communications port connected to an external network;

a protected processing environment; and

one or more memories storing

one or more rules designed to at least in part control the operations of the object classifier, user classifier or matching engine,

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usage data received from a usage clearinghouse, and

a digital certificate.

A digital commerce system as in Claim 164, further including network means for routing requests for matching and classification services to the first matching and classification utility or the second matching and classification utility, the routing means including means for evaluating whether the requests are appropriate for the first organization or the second organization.

166. A network including the following:

a first matching and classification utility associated with a first vertical market, the first matching and classification utility including:

an object classifier;

a user classifier, including means for analyzing usage data and using the usage data to assign users to classes;

a matching engine;

a communications port connected to an external network;

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one or more rules designed to at least in part control the operations of the object classifier, user classifier or matching engine;\and

a second matching and classification utility associated with a second vertical market, the second matching and classification utility including:

an object classifier;

a user classifier, including means for analyzing usage data and using the usage data to assign users to classes;

a matching engine;

a communications port connected to an external network;

a protected processing environment; and

one or more memories storing

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one or more rules designed to at least in part control the operations of the object classifier, user classifier or matching engine.

167. A network as in Claim 166, further including:

two entities in the first vertical market, each entity including communications means for communicating with the first matching and classification utility; and

two entities in the second vertical market, each entity including communications means for communicating with the first matching and classification utility.

168. A network as in Claim 167, further in duding:

a first clearinghouse associated with the first vertical market, the first clearinghouse including communications means for communicating with the first matching and classification utility and for communicating with the first vertical market entities; and

a second clearinghouse associated with the second vertical market, the second clearinghouse including communications means for

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communicating with the second matching and classification utility and for communicating with the first vertical market entities.

- 169. A network as in Claim 168, in which the first vertical market relates to publishing.
- 170. A network as in Claim 168, in which the first vertical market relates to digital music.
- 171. A method including the steps of:

generating a first content object;

packaging the first content object with metadata and a first rule;

communicating the first content object to a matching and classification utility;

at the matching and classification utility, using the metadata to assign the content object to a content class;

packaging the first content object in a secure container having associated the first rule, a second rule added at the matching and classification utility, and metadata identifying the content class;

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communicating the secure container to a user chosen based at least in part on a match between the content class and a user class to which the user had been assigned;

at the user's site, the user complying with the first rule or the second rule and, based on the compliance, opening the secure container to retrieve at least a portion of the first content object; and

at the user's site, the user using at least a portion of the first content object, the use at least in part controlled by the first rule or the second rule.

172. A method as in Claim 171, further including:

before the step of communicating the secure container to the user, the matching and classification utility receiving demographic information from the user and, based at least in part on the demographic information, the matching and classification utility assigning the user to the user class.

173. A method as in Claim 172, further including:

before the matching and classification utility receives demographic information from the user, the user packaging the demographic

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information in a secure container and associating a rule with the secure container, the rule at least in part governing use of at least a portion of the secure container contents, the demographic information being received by the matching and classification utility in the secure container and the matching and classification utility complying with the rule in making a use of at least a portion of the demographic information.

174. A method as in Glaim 171, further including:

before the step of communicating the secure container to the user, the matching and classification utility receiving usage information from a usage clearinghouse, the usage information relating to the user and, based at least in part on the usage information, the matching and classification utility assigning the user to the user class.

175. A method as in Claim 174, in which:

the usage information includes information relating to the user's usage of a second content object, the second content object being a member of the content class.

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178 A method including the following steps:

at a first site, generating a secure container including a content object and having associated a first rule, the first rule at least in part governing use of the secure container contents;

communicating the secure container to a matching and classification utility located at a second site;

at the matching and classification utility, assigning the content object to a class, the assignment based at least in part on the nature or identity of the first rule;

selecting the content object for communication to a third site, the selection being based at least in part on the class; and

communicating the content object to the third site.

177. A method as in Claim 176, further including

before the selection of the content object for communication to the third site, assigning the third site, or a user associated with the third site, to a user class, the selection of the content object for communication to the third site based at least in part on the user class.

A method as in Claim 177, further including:

before the assignment of third site or the third site user to the user class, redeiving information from a clearinghouse relating to the third site or the third site user, the user class assignment based at least in part on the received\information.

- A method as in Claim 178, in which the information received from the clearinghouse relates to one or more uses of content made by the third site user.
- A method as in Claim 179, in which the user class assignment is also 180. based at least in part on an inhication from the user regarding types of content objects the user is interested in receiving.
- 181. A method including the steps of:

at a matching and classification utility, receiving information from a usage clearinghouse, the information relating to usage patterns of a first user;

assigning the first user to a first user class, the assignment based at least in part on the usage clearinghouse information;

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at the matching and classification utility, receiving audit trail information from a site associated with a second user, the audit trail information relating to a transaction entered into by the second user;

assigning the second user to the first user class based at least in part on the audit trail information;

at the matching and classification utility, receiving demographic information from a third user;

assigning the third user to the first user class based at least in part on the demographic information;

packaging information relating to the first user class in a first secure container having associated a first rule at least in part governing at least a portion of the secure container contents;

communicating the first secure container to a third party;

the third party using the information to select the first user, the second user and the third user;

based at least in part on the selection, the third party providing a content object to the first user, the second user and the third user.

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182 A method as in Claim 181, further including:

> assigning the third user to a second user class based at least in part on the third user demographic information, the first and second users not being assigned to the second user class.

A method as in Claim 181, in which the second user audit trail information is received by the matching and classification utility in a secure container having associated a second rule, and the matching and classification utility's use of the audit trail information is governed at least in part by the second rule.

- A method as in Claim 183, it which the second rule allows the provision of 184. summary identification information relating to the second user to the third party for the purpose of the third party selecting a content object for provision to the second user.
- 185. A method as in Claim 181, in which the content object is provided to the first user, the second user, and the third user in a second secure container, having associated a second rule, the second rule at least in part governing use of at least a portion of the second secure container contents.

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